UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,236	12/15/1999	JOSEPH C. HARROW	062891.0311	8644

5073 7590 07/12/2007

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
MEW, KEVIN D	

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
07/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mike.furr@bakerbotts.com
ptomail1@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	09/465,236	HARROW ET AL.	
	Examiner	Art Unit	
	Kevin Mew	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-7,9-14 and 33-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-7,9-14 and 33-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Response to Amendment

1. Applicant's Remarks/Arguments filed 4/30/2007 regarding claims 2-7, 9-14, 33-41 have been considered. Claims 1, 8, 31-32 have been canceled and claims 15-30 have been withdrawn by applicant. Claims 2-7, 9-14, 33-41 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2-7, 9-14, 38-39, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Botzko et al. (USP 6,141,597) in view of Gregory, III et al. (USP 5,793,415).

Regarding claims 38, 39, Botzko discloses an apparatus to perform a method of using a plurality of processors to support a media conference (a conferencing system/apparatus for using a plurality of audio processors and decoders, Fig. 2), comprising:

a mixing processor (mixer, element 28, Fig. 3) operable to perform a method for mixing input media information (to mix uncompressed audio input streams) associated with two or more first participants (associated with participants in sites A, B, C) to generate output media information (generates output audio information, element 35, Fig. 3) for communication to a second participant (for communication to participant in site D); and

a first media transformation processor (encoder, element 29, Fig. 3) coupled to the mixing processor (coupled to the mixer, elements 28, Fig, 3), the first media transformation processor operable to perform receiving the output media information from the mixing processor (the encoder 29 is to receive the output audio processor information from the mixer 28, Fig. 3), to encode the output media information to generate an output data stream (to encode the uncompressed audio of mixed audio signals to generate compressed audio of mixed audio signals), and to perform communicating the output data stream to the second participant's end-user device (to communicate the compressed audio through line 20c to site C, Fig. 3).

Botzko does not explicitly show the mixing processor and the first media transformation processor are separate hardware components.

However, Gregory discloses a audio/video conferencing system that comprises a mixer and an encoder that are implemented as different hardware devices/components (col. 3, lines 35-42, col. 4, lines 1-13; note that the encoder is preferably manufactured by British Telecom as BT 2300 CODEC whereas the mixer is a hardware component produced by Innovative Electronic Design model 5000-series).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the media conference system and method of Botzko with the teaching of Gregory in having a audio/video conferencing system comprising a mixer and an encoder implemented as different hardware devices/components such that the mixing processor and the first media transformation processor of Botzko are made as separate hardware components.

The motivation to do so is to use a hardware CODEC to encode audio data generated by the audio/video conferencing system for transmission across a network to a remote videoconference site and to use a hardware mixer to perform audio mixing and echo cancellation.

Regarding claims 2, 9, Botzko discloses the apparatus of Claim 38, further comprising a second media transformation processor (decoder, element 18a) coupled to the mixing processor (coupled to the audio processor 14c that comprises a mixer, Figs. 2 and 3), the second media transformation processor (decoder) operable to perform receiving an input data stream from a first participant's end-user device (decoder receives an input stream from the first participant of site A, element 18a, Fig. 2), to perform decoding the input data stream to generate input media information associated with the first participant (to decode to generate uncompressed audio signal input stream associated with the participant in site A), and to perform communicating the input media information associated with the first participant to the mixing processor (to communicate the uncompressed audio 19a to the mixer 28 of the audio processor 14c, Figs. 2 and 3).

Regarding claim 3, the combined system of Botzko and Gregory discloses all the aspects of the claimed invention as set forth in the rejection of claim 38 above.

Botzko may not disclose the first media transformation processor is further operable to receive an input data stream from the second participant's end-user device, to decode the input data stream to generate input media information associated with the second participant, and to

communicate the input media information associated with the second participant to the mixing processor.

However, Gregory discloses a multimedia conferencing system in which the decoder of CODEC is used to decode data received from a remote videoconference site via an ISDN network and the audio signals received are processed by the CODEC and output to an audio mixer (col. 3, lines 35-42, col. 4, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the audio conferencing system of Botzko with the teaching of Gregory in using a decoder to decode data received from a remote conference site to audio signal and output the audio signal to a mixer such that the encoder in Botzko will be modified to become the CODEC of Gregory such that besides having the encoder function of the CODEC, the CODEC's decoder will receive an input data stream from the second participant's end-user device, to decode the input data stream to generate input media information associated with the second participant, and to communicate the input media information associated with the second participant to the mixing processor.

The motivation to do so is to recover the original audio signal by converting the data received from a remote conference site into audio signal output.

Regarding claim 4, the combined system of Botzko and Gregory discloses all the aspects of the claimed invention as set forth in the rejection of claim 38 above.

Botzko may not explicitly show the apparatus of Claim 38, wherein the mixing processor is further operable to receive an input data stream from a first participant's end-user device and to

decode the input data stream to generate input media information associated with the first participant.

However, Gregory discloses a multimedia conferencing system in which the decoder of CODEC is used to decode data received from a remote videoconference site via an ISDN network and the audio signals received are processed by the CODEC and output to an audio mixer (col. 3, lines 35-42, col. 4, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the audio conferencing system of Botzko with the teaching of Gregory in using a decoder to decode data received from a remote conference site to audio signal and output the audio signal to a mixer such that the mixer in Botzko will be modified to perform both the decoding and mixing functions such that the mixer is further operable to receive an input data stream from a first participant's end-user device and to decode the input data stream to generate input media information associated with the first participant.

The motivation to do so is to recover the original audio signal by converting the data received from a remote conference site into audio signal output.

Regarding claims 5, 6, Botzko discloses all the aspects of the claimed invention as set forth in the rejection of claim 38 above, except fails to disclose the mixing processor and the first media transformation processor are separate digital signal processors (DSPs)/integrated circuits.

Botzko does not explicitly show the mixing processor and the first media transformation processor are separate hardware components.

However, Gregory discloses a audio/video conferencing system that comprises a mixer and an encoder that are implemented as different hardware devices/components (col. 3, lines 35-42, col. 4, lines 1-13; note that the encoder is preferably manufactured by British Telecom as BT 2300 CODEC whereas the mixer is a hardware component produced by Innovative Electronic Design model 5000-series).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the media conference system and method of Botzko with the teaching of Gregory in having a audio/video conferencing system comprising a mixer and an encoder implemented as different hardware devices/components such that the mixing processor and the first media transformation processor of Botzko are made as separate hardware components.

The motivation to do so is to use a hardware CODEC to encode audio data generated by the audio/video conferencing system for transmission across a network to a remote videoconference site and to use a hardware mixer to perform audio mixing and echo cancellation.

Regarding claims 7, 14, Botzko discloses the apparatus of Claim 38, wherein the media conference is a voice telephone conference and the media information is voice information (audio conferencing system, col. 3, lines 65-67, and element 12, Fig. 2).

Regarding claim 10, the combined system of Botzko and Gregory discloses all the aspects of the claimed invention as set forth in the rejection of claim 39 above.

Botzko may not explicitly disclose the method of Claim 39, further comprising:

receiving at the first media transformation processor an input data stream from the second participant's end-user device;

decoding the input data stream to generate input media information associated with the second participant;

communicating the input media information associated with the second participant (communicating the uncompressed audio 19c to the audio processor 14a, Fig. 2) from the first media transformation processor to the mixing processor; and

mixing the input media information associated with the second participant with input media information from one or more other participants to generate output media information for communication to a first participant.

However, Gregory discloses a multimedia conferencing system in which the decoder of CODEC is used to decode data received from a remote videoconference site via an ISDN network and the audio signals received are processed by the CODEC and output to an audio mixer (col. 3, lines 35-42, col. 4, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the audio conferencing system of Botzko with the teaching of Gregory in using a decoder to decode data received from a remote conference site to audio signal and output the audio signal to a mixer such that the encoder in Botzko will be modified to become the CODEC of Gregory such that besides having the encoder function of the CODEC, the CODEC's decoder will receive an input data stream from the second participant's end-user device, to decode the input data stream to generate input media information associated with the

second participant, and to communicate the input media information associated with the second participant to the mixing processor.

The motivation to do so is to recover the original audio signal by converting the data received from a remote conference site into audio signal output.

Regarding claim 11, the combined system of Botzko and Gregory discloses all the aspects of the claimed invention as set forth in the rejection of claim 39 above. Botzko may not explicitly show the method of Claim 39, further comprising: receiving at the mixing processor an input data stream from a first participant's end- user device; and decoding the input data stream to generate input media information associated with the first participant.

However, Gregory discloses a multimedia conferencing system in which the decoder of CODEC is used to decode data received from a remote videoconference site via an ISDN network and the audio signals received are processed by the CODEC and output to an audio mixer (col. 3, lines 35-42, col. 4, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the audio conferencing system of Botzko with the teaching of Gregory in using a decoder to decode data received from a remote conference site to audio signal and output the audio signal to a mixer such that the mixer in Botzko will be modified to perform both the decoding and mixing functions such that the mixer is further operable to receive an input data stream from a first participant's end-user device and to decode the input data stream to generate input media information associated with the first participant.

The motivation to do so is to recover the original audio signal by converting the data received from a remote conference site into audio signal output.

Regarding claims 12, 13, Botzko discloses all the aspects of the claimed invention as set forth in the rejection of claim 39 above, except fails to disclose the mixing processor and the first media transformation processor are separate digital signal processors (DSPs)/integrated circuits.

Botzko does not explicitly show the mixing processor and the first media transformation processor are separate hardware components.

However, Gregory discloses a audio/video conferencing system that comprises a mixer and an encoder that are implemented as different hardware devices/components (col. 3, lines 35-42, col. 4, lines 1-13; note that the encoder is preferably manufactured by British Telecom as BT 2300 CODEC whereas the mixer is a hardware component produced by Innovative Electronic Design model 5000-series).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the media conference system and method of Botzko with the teaching of Gregory in having a audio/video conferencing system comprising a mixer and an encoder implemented as different hardware devices/components such that the mixing processor and the first media transformation processor of Botzko are made as separate hardware components.

The motivation to do so is to use a hardware CODEC to encode audio data generated by the audio/video conferencing system for transmission across a network to a remote

videoconference site and to use a hardware mixer to perform audio mixing and echo cancellation.

Regarding claim 41, Botzko discloses the apparatus of Claim 38, further comprising a system resource management (SRM) module (selector 34, Fig. 3) coupled to one or more media transformation processors and one or more mixing processors (coupled to encoder and mixer, elements 28, 29, Fig. 3), the SRM module operable to receive a request to support a media conference (receives speech signals spoken from different persons at the same time, col. 7, lines 20-39) and, in response, to allocate the media conference to the first media transformation processor and the mixing processor (couples the conferences/persons speaking at the same time to site C, col. 7, lines 20-39).

3. Claims 33, 35-37, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Botzko et al. in view of Celli (USP 5,020,098), and in further view of Gregory III et al.

Regarding claim 40, Botzko discloses a system for using a plurality of processors to support a media conference, comprising:

a conferencing device (conferencing system, element 15, Fig. 2) coupled to the data network (local area network), the conferencing device (the conferencing system 15, Fig. 2) comprising two or more processors operable (the conferencing system 15 comprises a plurality of decoders, elements 18a, 18b , 18c, 18d, Fig. 2) to decode the input data streams to generate the input media information (to decode input audio information, Fig. 2), to mix the input media information to generate output media information (mixer to mix uncompressed audio signals

from sites A, B, C, element 28, Fig. 3), and to encode the output media information to generate output data streams (encoder to encode the uncompressed audio of mixed audio signals to generate compressed audio of mixed audio signals, element 29, Fig. 3), wherein the processors are separate hardware components (decoder, mixer, encoder are separate hardware components, Figs. 2 and 3);

a mixing processor (mixer, element 28, Fig. 3) operable to perform a method for mixing input media information (to mix uncompressed audio input streams) associated with two or more first participants (associated with participants in sites A, B, C) to generate output media information (generates output audio information, element 35, Fig. 3) for communication to a second participant (for communication to participant in site D); and

a first media transformation processor (encoder, element 29, Fig. 3) coupled to the mixing processor (coupled to the mixer, elements 28, Fig, 3), the first media transformation processor operable to perform receiving the output media information from the mixing processor (the encoder 29 is to receive the output audio processor information from the mixer 28, Fig. 3), to encode the output media information to generate an output data stream (to encode the uncompressed audio of mixed audio signals to generate compressed audio of mixed audio signals), and to perform communicating the output data stream to the second participant's end-user device (to communicate the compressed audio through line 20c to site C, Fig. 3).

Botzko does not explicitly show a plurality of end-user devices coupled to a data network and operable to generate input media information, to encode the input media information to generate input data streams, and to communicate the input data streams using the data network,

and the end-user devices are further operable to receive the output data streams and to decode the output data streams to generate output media information.

However, Celli discloses an audio telephone conferencing system in which the end-user devices coupled to a digital data network (Figs. 2 and 3) will generate audio out signals from the directional circuitry 33, encode the audio out signals by DSP 36 (Fig. 3) to generate input data streams and communicate the input data streams to the data network via a network interface (col. 3, lines 54-67, col. 4, lines 1-20 and Fig. 3), and will also receive data streams from a digital network and decode the data streams by DSP 39 to audio signals (col. 4, lines 21-43 and Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the audio conferencing system and method of Botzko with the teaching of Celli in using end-user devices that will receive audio information and encode the audio information to data streams to be transmitted through a data network such that the end-user devices of Botkzo will incorporate the features of the end-user devices disclosed in Celli.

The motivation to do so is to perform CCITT G.722 encoding of audio signals before transmitting to a digital network and CCITT G.722 decoding of packet data streams from a digital network.

The combined system of Botzko and Celli does not explicitly show the mixing processor and the first media transformation processor are separate hardware components.

Regarding claim 33, Botzko also discloses the system of Claim 40, wherein the conferencing device further comprises one or more media transformation processors (decoder,

element 18a, Fig. 2) operable to decode the input data streams to generate the input media information (to decode compressed audio packets to generate uncompressed audio, Fig. 2).

Regarding claims 35, 36, the combined system of Botzko and Celli discloses all the aspects of the claimed invention as set forth in the rejection of claim 40 above, except fails to disclose the mixing processor and the first media transformation processor are separate digital signal processors (DSPs)/integrated circuits.

Botzko does not explicitly show the mixing processor and the first media transformation processor are separate hardware components.

Regarding claim 37, Botzko also discloses the system of Claim 40, wherein the media conference is a voice telephone conference and the media information is voice information (audio conferencing system, col. 3, lines 65-67, and element 12, Fig. 2).

4. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Botzko et al. in view of Celli and Gregory, and in further view of Leondires et al. (USP 5,841,763).

Regarding claim 34, the combined system of Botzko, Gregory and Celli discloses all the aspects of the claimed invention as set forth in the rejection of claim 40 above, except fails to disclose the system of Claim 40, wherein the conferencing device is further operable to identify a coding standard used by a participant's end-user device to encode input media information and to encode output media information for communication to the participant's end-user device using the identified coding standard.

However, Leondires discloses an audio-video conferencing system for performing audio encoding and decoding according to one of the G.711, G.722, G.728 standards (col. 14, lines 23-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined audio conferencing system of Botzko, Celli and Gregory with the teaching of Leondires in identifying one of the standards for use in encoding such that conferencing system of Botzko is further operable to identify a coding standard used by a participant's end-user device to encode input media information and to encode output media information for communication to the participant's end-user device using the identified coding standard.

The motivation to do so is to determine the corresponding processing requirements needed for each encoding format.

Response to Arguments

5. Applicant's arguments filed 4/30/2007 have been fully considered and but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Mew KM
Work Group 2616

CHI PHAM
SUPERVISORY PATENT EXAMINER 7/9/07